CLAIMS

1.       A picture information encoding method of
performing an encoding process for picture information
using a motion prediction, wherein the encoding process
is performed for a block with at least one of moving
vector information and coefficient information being
omitted and the encoding process has an encoding mode
in which the omitted information can be restored at a
decoding side according to a predetermined rule, the
method comprising the steps of:

      determining whether the block can be encoded
in the encoding mode with alternative information
including motion information of predetermined adjacent
blocks of the block; and

      generating pseudo motion information instead
of the unusable motion information and providing the
pseudo motion information as the alternative
information, when the motion information of at least
one of the adjacent blocks is unusable.

2.       The picture information encoding method as
set forth in claim 1,

      wherein the pseudo motion information is
usable motion information of a neighbor block of an
adjacent block that has the unusable motion information.

3.       The picture information encoding method as
set forth in claim 1,

      wherein the pseudo motion information is a

44

predetermined value.

4.      The picture information encoding method as set forth in claim 1,

wherein the encoding mode includes a first mode in which the block is encoded with the moving vector information and the coefficient information being omitted, and

wherein at the determining step and the pseudo computing step the moving vector information is treated as the motion information in the first mode.

5.      The picture information encoding method as set forth in claim 1,

wherein the encoding mode includes a second mode in which when the block is encoded with the moving vector information being omitted, and

wherein at the determination step and the pseudo computation step the moving vector information and the reference index information are treated as the motion information in the second mode.

6.      The picture information encoding method as set forth in claim 2,

wherein the block is encoded according to MPEG4/AVC standard, and

wherein when the pseudo motion information does not match the motion information computed according to the MPEG4/AVC standard, at the determination step, the pseudo motion information is

45

not used as the alternative information.

7.        The picture information encoding method as set forth in claim 2,

wherein the block is encoded according to MPEG4/AVC standard, and

wherein when the pseudo motion information does not match the motion information computed according to the MPEG4/AVC standard, at the determination step, the pseudo motion information is alternative moving vector information for a block of 16 x 16 in a first mode in which the block is encoded with the moving vector information and the coefficient information being omitted and the pseudo motion information is alternative moving vector information for a block of 16 x 16 or a block of 8 x 8 in a second mode in which the block is encoded with the moving vector information being omitted.

8.        The picture information encoding method as set forth in claim 2,

wherein a block that has a larger spatial distance than the adjacent block that has the unusable motion information is selected as the neighbor block.

9.        A picture information encoding apparatus that performs an encoding process for picture information using a motion prediction, wherein the encoding process is performed for a block with at least one of moving vector information and coefficient information being

46

omitted and the encoding process has an encoding mode in which the omitted information can be restored at a decoding side according to a predetermined rule, the apparatus comprising:

5        a determining section that determining whether the block can be encoded in the encoding mode with alternative information including motion information of predetermined adjacent blocks of the block; and

10        a pseudo computing section that generates pseudo motion information instead of unusable motion information and provides the pseudo motion information as the alternative information, when the motion information of at least one of the adjacent blocks is

15    unusable.

10.        A program that causes a computer to execute a picture information encoding method of performing an encoding process for picture information using a motion prediction, wherein the encoding process is performed

20    for a block with at least one of moving vector information and coefficient information being omitted and the encoding process has an encoding mode in which the omitted information can be restored at a decoding side according to a predetermined rule, the method

25    comprising the steps of:

        determining whether the block can be encoded in the encoding mode with alternative information

47

including motion information of predetermined adjacent
blocks of the block; and

generating pseudo motion information instead
of the unusable motion information and providing the
pseudo motion information as the alternative
information, when the motion information of at least
one of the adjacent blocks is unusable.

5